MARKO BARAN

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EDUCATION

Northeastern University, College of Engineering, Boston, MA May 2027
Candidate for Bachelor of Mechanical Engineering **GPA: 3.61**
Minor: Business Administration, Mathematics
Courses: Cornerstone of Engineering I-II, Thermodynamics, Dynamics, Mechanics of Materials, Statics, Physics I-II, Calculus III, Differential Equations and Linear Algebra, Probability and Statistics, Chemistry
Achievements: Dean's List, 2025 Equipped World Powerlifting Champion
Activities: Northeastern Power Lifting, American Society of Mechanical Engineers (ASME), Northeastern Downhillers

PROFESSIONAL WORK EXPERIENCE

Mechanical Engineer Co-op, Revolution Space, Charlestown, MA January 2025 – June 2025

- Designed and documented critical hardware for Revolution Space's first-ever flight unit, including 2 flight parts, a COTS lifting assembly, and a custom shipping container for secure transportation
- Designed and 3D printed ground support equipment such as test fixtures, and storage tools to enable safe handling, testing, and storage of sensitive flight hardware
- Performed analysis, including hand calculations and risk assessment on my designs, and presented findings and solutions in formal engineering review board meetings
- Supported system integration efforts by modeling COTS parts in SolidWorks, creating assemblies and drawings, and providing mass properties of systems for structural and thermal analysis

Mechanical Engineer Co-op, HighRes Biosolutions, Beverly, MA January 2024 - June 2024

- Updated assemblies, and engineering drawings using SolidWorks
- Redesigned and implemented parts to address concerns in released products, and prototyped features for future versions of new products
- Reworked parts and their drawings in SolidWorks, and oversaw their manufacturing process
- 3D printed fixtures for test procedures, devices, and PCBs
- Led and participated in brainstorming sessions with the engineering team

OTHER WORK EXPERIENCE

Cornerstone Grader, Northeastern University, Boston, MA September 2023 - Present

- Review and grade C++, AutoCAD, SolidWorks, and Arduino assignments weekly for 25-30 students
- Provide feedback to students through comments and emails in assignments and announcements on Canvas
- Check in with students to make sure they are up to date on their assignments

RESEARCH

Drone Research, Institute for the Wireless Internet of Things, Boston, MA January 2023 - December 2023

- Coded a program to map the live position of a drone using Python and gather information from sensors
- Collaborated with other researchers to build a drone, which involved soldering wiring, and attaching motors and sensors

COMPUTER AND MACHINING SKILLS

Applications: SolidWorks, Onshape, AutoCAD, MATLAB, Arduino
Programming: C++, Python
Machining: Mills and lathes (basic)

INTERESTS

Weightlifting, Snowboarding, 3D Printing, Vehicles (fixing and modding motorcycles and cars)